

Now, however, instead of butterfly-collecting being ridiculed, it has become almost necessary to discourage it in England in order to prevent the total extermination of all our rare and local species, while abroad it is pursued with enthusiasm by travellers and colonials, some of them belonging to the highest social circles. Again, during the last fifty years, so much light has been thrown on various scientific problems by the study of butterflies that eminent professors are ready to devote a great portion of their lives to such investigations.

Of late years, many Indian officers and civilians have taken up the collection and study of the butterflies of our Indian Empire, which are probably better known at the present time than those of any other part of the world outside Europe, except North America and South Africa. But there exists no complete work on the subject suitable for the use of students. Mr. F. Moore's great works on the butterflies of Ceylon and India are very bulky and costly, and the latter is still in progress, while the regretted death of L. de Nicéville left the work commenced by himself and Col. Marshall, and subsequently carried on by de Nicéville only, complete only as regards the earlier families. Lieut.-Colonel Bingham, a retired Indian officer, who has collected insects assiduously in many parts of India, Burma, &c., and who has already published two volumes on Hymenoptera in the present series, "The Fauna of British India," has been wisely chosen to supply the existing want of a manual of Indian butterflies, and with his previous practical experience behind him, and with sufficient leisure, and access to the collections and library of the Natural History Museum at South Kensington at his disposal, the work could not have been placed in better or more competent hands.

It is expected that three volumes will be required to deal adequately with the subject. Six families are admitted by the author, of which the first two, Nymphalidæ and Nemeobidæ, are discussed in the first volume. The arrangement of the work is similar to that which has been used in previous volumes of this series dealing with insects, which are already well known to all entomologists. The introduction, necessarily brief, contains remarks on classification, metamorphoses and structure, with text-illustrations of the larva and pupa of *Vanessa*, the head and body of *Argynnis* and *Charaxes*, and a very useful selection of figures of labial palpi, antennæ, neuration of wings, and legs. It is worthy of special remark that the author expressly discards the term "species" as liable to mislead, and uses "form" instead, as less objectionable.

Four hundred and seventy-nine species are described in vol. i., belonging to the Nymphalidæ (with six sub-families, *Danainæ*, *Satyrinæ*, *Acraeinæ*, *Libytheinæ*, *Morphinæ*, and *Nymphalinæ*), and *Nemeobidæ* (five genera only).

The text illustrations are excellent, and among the more interesting ones we may note Figs. 13 and 14, on p. 40, showing the variations in shape and markings of the forewings of seven specimens of *Euploea klugii*, Moore, and Fig. 94, on p. 501, of *Stiboges nymphidia*,

Butl., showing its remarkable resemblance to a species of the well-known tropical American genus *Nymphidium*.

Ten full-page plates (half-figures only) are added, drawn by Mr. Horace Knight and lithographed by the three-colour process by Messrs. Hentschel, and these alone are sufficient to give some idea to outsiders of the variety and beauty of the butterflies of India. If we take the butterflies of Great Britain at 70, those of Europe at 300, and those of British India, within the limits of the present work, at 1500, we shall have a fairly accurate idea of the proportions borne to each other by these three faunas:

In outlying districts, no doubt, many species still remain to be added to the Indian butterfly fauna, but apart from this, nothing is yet known of the transformations, habits, &c., of a great proportion of the insects, which will be sufficient to occupy the attention of numerous observers for many years. The metamorphoses of each butterfly, so far as yet known, are briefly noticed by Lieut.-Colonel Bingham, but it is only occasionally that he has been able to offer his readers any information of this description.

#### THE STATE AND AGRICULTURE.

*The State and Agriculture in Hungary.* By Dr. Ignatius Darányi, translated by A. György. Pp. xxii+264. (London: Macmillan and Co., Ltd., 1905.) Price 5s. net.

THERE are two fundamentally opposite theories of the duties of a public department dealing with a great industry such as the Board of Agriculture in this country—the one that its function is to foster the industry, the other that it is simply concerned in registering the progress and administering such legislative enactments as may be necessary from time to time.

Our English public offices have all grown up on the latter model, and the Board of Agriculture, which is always being abused for not doing this or that to improve the position of farmers, might legitimately answer that it was never designed to offer any such help to the agriculturist. Of course, the official apologists of the Board cannot put forward such a view nakedly; their plan is rather to divert the unreasonable attack by a show of activity.

To take a concrete case; the Board of Agriculture endeavours to eradicate swine fever—that it recognises as a proper function, true police work for agriculture—but supposing it should be urged to do something to improve the breed of pigs kept in England by introducing new breeds or by distributing boars of the right type in the backward districts, it would probably meet the demand by issuing a leaflet on "points to be aimed at in pig-breeding." The English method is cheap; it is also supposed to be bracing; and the English farmer, being subjected to the State-aided and bounty-fed competition of all other agricultural countries in the only open market, his own, is supposed to be in special need of a bracing régime.

So when people ask why the Board of Agriculture does not educate like France, or investigate like

Germany, or introduce new crops and new industries like the United States, or organise its workers like Hungary, the Board has one sufficient and final answer in the fact that such has never been the English theory of the function of a public office.

In the book before us we have an account of the policy of a man who took a different point of view, and created, perhaps, the most paternal ministry of agriculture in the world. Dr. Ignatius Darányi was Minister of Agriculture for seven years (1896-1903) in Hungary, and during his tenure of office he built up an extraordinary system of agricultural education, investigation, and organisation in Hungary. It would be impossible in the limits at our disposal to discuss either the means adopted or the results that have accrued; roughly speaking, Dr. Darányi's method in any industry was to make a start with a State-owned farm or garden, forest or mill, as the case might be. Here proceeded the investigations necessary to establish the conditions requisite for success, and from this centre issued the teachers who carried the new methods to the cultivators. The State then stepped in again, sometimes to lend the cultivator the money necessary for the fresh start, or to organise a co-operative society to enable him to realise the full advantage of the newer methods. Thus, by leaps and bounds, the whole character and quality of Hungarian agriculture has been changed. The reader will find the process set out fully with a wealth of statistical detail in Dr. Darányi's book, which takes the form of a kind of valedictory report on quitting office. It has been excellently translated by Mr. György, who, knowing so well the conditions prevailing in England, adds a preface discussing the value and limits of State interference in such matters. It is a wonderful record; to the English reader, particularly if he be a farmer, it seems difficult to believe that so much can be done for the industry, and also that the distance of a few hundred miles should render impossible in this country methods that have proved so practicable and so fruitful for the Hungarian agriculturist.

#### OUR BOOK SHELF.

*The Treatment of Diseases of the Eye.* By Dr. Victor Hanke. Translated by J. Herbert Parsons, F.R.C.S., and George Coats, M.D., F.R.C.S. Pp. vi+222. (London: Hodder and Stoughton, 1905.) Price 3s. 6d. net.

DR. VICTOR HANKE, the writer of this little book, is principal assistant to Prof. Fuchs in Vienna, and the methods of this famous clinique are those which are here given to a wider public. It naturally follows that it is characterised throughout by a practical sanity which has been sadly lacking in some books on similar subjects which have recently been thought worthy of translation. The author has no special hobby-horse on which to ride to mental destruction. His treatment throughout is practical, scientific in the best sense of the word, what we may call for lack of a more fitting adjective, commonsensical. There is no rash advocacy of new and untried methods of treatment simply because of their novelty. Consequently, it is a book which can be thoroughly recommended to all practitioners of the art of medicine. Reliance on it will not lead to dis-

appointment, for the methods advocated are thoroughly modern and sound.

A careful reading reveals practically no ground for adverse criticism, and many points for active commendation. The warning against the indiscriminate use of cocaine is one that should be unnecessary to any practising ophthalmic surgeon, and yet we have only recently seen prescriptions for lotions and drops given to patients for frequent use containing cocaine. "The immoderate use of cocaine . . . is not only unnecessary but actually harmful to the corneal epithelium"; and again, "Cocaine should in general not be used, for on the one hand its action is only transitory, while on the other it has an injurious influence on the corneal epithelium; moreover the dilatation which follows the temporary contraction of the vessels is harmful."

It would be easy to point out many places in which good results can be obtained by methods of treatment other than those recommended, but as the book does not in any way pretend to be exhaustive, and as the methods given are thoroughly sound, it would be hypercritical to do so. We doubt, however, the advisability of the use of adrenalin in severe inflammatory glaucoma, even if only given to facilitate the operation. Macallan, in a paper in the Ophthalmic Hospital reports some two or three years ago, pointed out the dangers of this drug in glaucoma, and its tendency to set up the hæmorrhagic form.

The chapter on the various forms of inflammation of the cornea and their treatment is quite the most valuable in the book, and generally the earlier chapters dealing with the external diseases of the eye are fuller than the later chapters. The reason of this is that the author does not pretend to give descriptions of operations where only "considerable skill and experience can command success," and in diseases of the deeper parts of the eye the advice of the ophthalmic surgeon is more likely to be called for, and this book is not intended for him. In conclusion, we can only reiterate what we have already stated, that students of medicine will find this a thoroughly safe guide in the treatment of diseases of the eye.

*Die Stellung Gassendis zu Descartes.* By Dr. Hermann Schneider. Pp. 67. (Leipzig: Dürr'sche Buchhandlung, 1904.) Price 1.50 marks.

GASSENDI AND DESCARTES were contemporaries and fellow-countrymen, but the relation between them is mainly one of contrast. Gassendi was of peasant origin, a writer encyclopædic in his range, an *Epicurus redivivus* with all Epicurus's distrust of mathematics and all his belief in a material soul, a sceptic who was yet content to remain in the ranks of the Catholic priesthood, his face ever turned to the past whether in philosophy or religion. On the other side there is Descartes, a noble by birth, a student principally of the human understanding, something of a Platonist, with the Platonist's reverence for mathematics and numbers, a dualist who fixed a great gulf between mind and body and between man and the lower animals, an uncompromising doubter of everything but his own doubt and all that is implied by the capacity to doubt, the exponent of *cogito, ergo sum*—in a word, the representative of the distinctively modern tendencies, which mean in religion Protestantism, in science mathematical physics, in philosophy Kantianism new and old. Only in so far as modern thought inclines to atomism and materialism—and how much that is the author points out in his closing paragraph—do we find that its sympathies lie with Gassendi rather than with Descartes.

These contrasts, extended into a detailed discussion of some of the writers' most important works and particularly of their views on psychology, physics, and